# PLAN FOR MONITORING SURFACE WATER QUALITY CONDITIONS IN WATERS IMPACTED BY HURRICANE KATRINA

## PHASE 1 – LAKE PONTCHARTRAIN AND SURROUNDING AREAS

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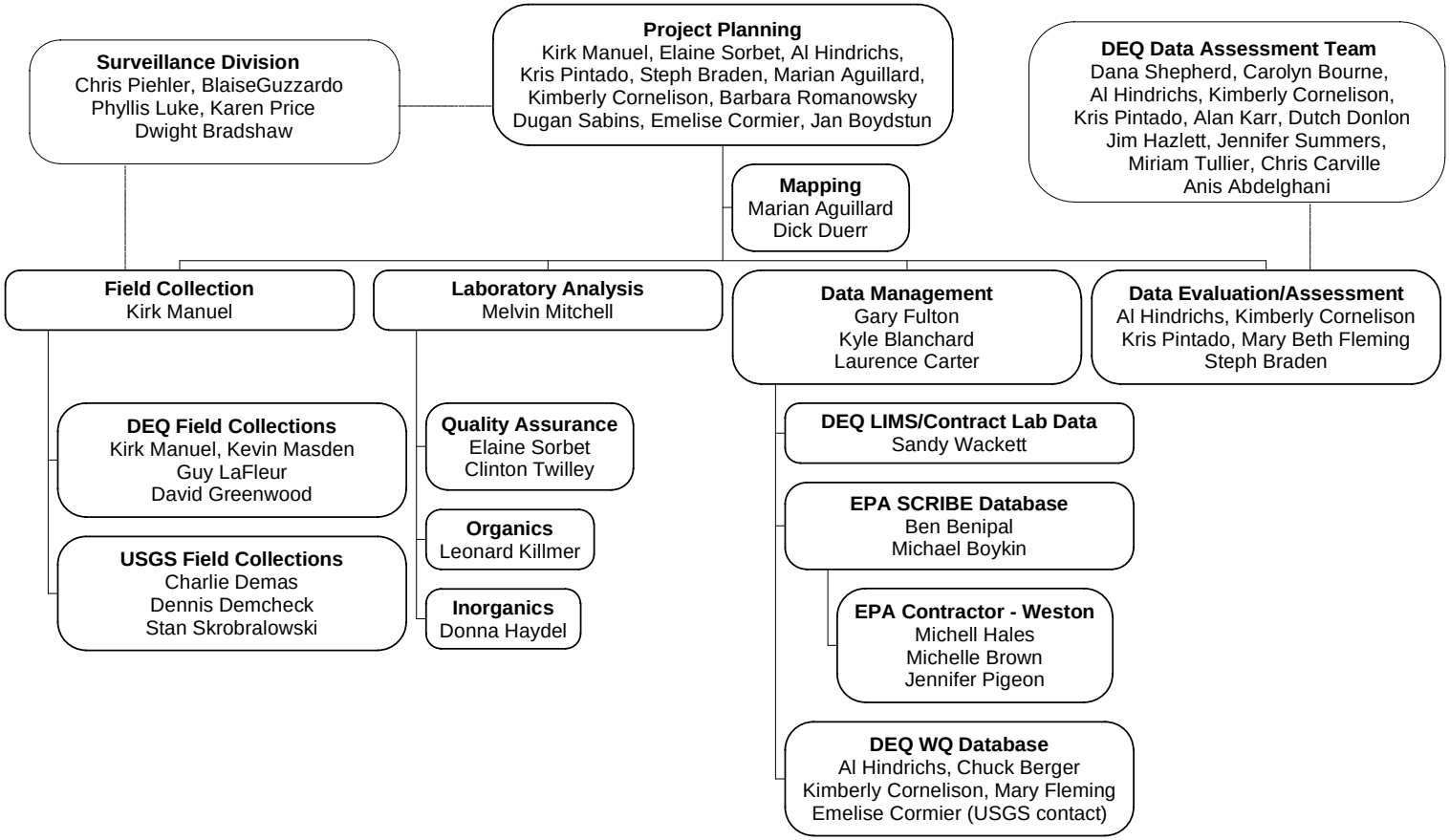
# PROJECT ORGANIZATION
## Surface Water Quality Monitoring Plan
## Hurricane Katrina - Impacts to Lake Pontchartrain and Surrounding Areas



## PROBLEM DEFINITION

On August 29, 2005, Hurricane Katrina struck Louisiana causing widespread damage within the LDEQ's Designated Water Quality Management Basins – Lake Pontchartrain, Pearl River, Terrrebonne, and Barataria Basins. The specific effects of Hurricane Katrina were unforeseen and uncontrollable; and emergency conditions (threats to human health and the environment) persist. In addition to emergency conditions, short- and long-term effects to surface water quality are anticipated in all impacted watersheds.

## BACKGROUND

Land uses in the impacted watersheds/area (Lake Pontchartrain, Pearl River, Terrebonne, and Barataria Basins) range from coastal marshes and cypress tupelo forests to highly urbanized and agricultural areas, with both natural and anthropogenic sources of pollutants. In the aftermath of Hurricane Katrina, preliminary sampling results show high concentrations of fecal coliform bacteria which can be attributed to both point and nonpoint sources. Failing waste water treatment plants, debris, and animal waste or carcasses have contributed to the concentration of bacteria in the receding floodwaters. High organic loads are expected from marshes and forests transporting sediments, nutrients and organic material into the receiving waters. Pesticides from row crop agriculture and highly urbanized areas, as well as oil and grease from submerged parking lots, roads, highways, and driveways will be unusually high. Sediment from construction sites, nutrients from fertilized lawns, and heavy metals (zinc, cadmium, chromium, copper, and lead) are also expected to be sources of pollutants within urbanized areas.

To determine the environmental impacts, LDEQ has worked with its state and federal partners to establish a unified Incident Management Team (IMT) for the coordination of environmental-related emergency response, assessment and recovery efforts. Joining DEQ in the IMT are the Texas Commission on Environmental Quality (TCEQ) "Strike Team"; EPA emergency response units; representatives from the Louisiana Oil Spill Coordinators Office (LOSCO), the U.S. Coast Guard (USCG), the National Oceanographic and Atmospheric Administration (NOAA), and the United States Geological Survey (USGS).

The LDEQ Water Quality Assessment Division (WQAD) and the USGS will monitor surface waters in the impacted areas to address the following objectives:

1. Collect appropriate samples to determine the impact of Hurricane Katrina on water quality in affected areas (i.e. before/after surface water quality conditions),
2. Collect appropriate samples to determine impact of pumping flood waters from New Orleans into Lake Pontchartrain, and

3. Determine if water quality standards are being exceeded (i.e. threat to human health and the environment)

## PROJECT TASK/DESCRIPTION

LDEQ has fixed watershed-based and waterbody-specific stations that are sampled on a routine basis. Both types of stations in the impacted areas will be targeted for the monitoring performed for this project. In order to assess short- and long-term impacts to surface water quality, LDEQ will conduct the sampling using a phased approach. A phased approach is necessary due to a lack of access in many areas, and to maximize shared resources.

Phase I sampling will concentrate on Lake Pontchartrain to gage the effects of receding floodwaters as well as the effects of pumped water diverted from the Greater New Orleans area into the lake. As accessibility and resources permit, monitoring will expand to more areas north of Lake Pontchartrain and to areas south/southeast/east of New Orleans (e.g. St. Bernard and Plaquemines Parishes, Chalmette, etc.). After assessing sampling results and accessibility, sites may be added or deleted, and sampling frequencies may change.

## SAMPLING DESIGN/SCHEDULE

A list of all current and historical ambient sites has been developed for the impacted areas; existing sites selected for the Phase 1 sampling effort are identified in Appendix A. This list also includes five new sites located along the south shore of Lake Pontchartrain to monitor the New Orleans pump-out areas. Also included in the list are two sites that USGS will monitor and provide the data to DEQ; site 0109 – Chef Menteur Pass and site 0035 – Pass Rigolets.

The following sampling scheme will be followed at all sites until further notice (i.e. it is determined that sampling is no longer necessary or can be reduced).

- Sampling will be done twice/week with the exception of dissolved metals (mercury and non-mercury); dissolved metals will be collected once/week.
- Field data (i.e. in situ dissolved oxygen, temperature, pH, conductivity and salinity) will be collected at all sites.
- Water sample collections for laboratory analysis will be made at all sites; Table 1 outlines the water sample collection requirements including agency responsibilities.

**TABLE 1. WATER SAMPLE COLLECTIONS AT EACH SITE**

| Bottle | Parameter Category | Collected By | Container | Preservation | Minimum Sample Volume or Weight | Maximum Holding Time | Analytical Methods | Laboratory |
|---|---|---|---|---|---|---|---|---|
| A | Conventionals | DEQ | Cylindrical plastic | 4°C | 1 liter | Turb. & Color 48 hours<br>TSS/TDS 7 days<br>Alkalinity 14 days<br>Cl, SO4, Cond. 28 days | Turb. EPA 180.1<br>TDS EPA 160.1<br>TSS EPA 160.2<br>Alkalinity EPA 310.1<br>Cl/SO4 EPA 300<br>Cond. EPA 120.1<br>Color EPA 110.2 | DEQ |
| B | Sodium<br><br>(Plus Total Metals at Sites 1049 and 1050 ONLY) | DEQ | Polyethylene, cylindrical | HNO3 pH < 2 | 8 ounces<br><br>(1 Liter for Sites 1050 and 0306) | 6 months | Sodium<br>and<br>Total Metals<br>EPA 200.7 | DEQ |
| Hg | Dissolved Mercury | DEQ | Freshwater Glass<br><br>Brackish Water (>0.5ppt salinity) Glass | 2% BrCl, 4°C<br><br>2% BrCl, 4°C | 500 mL<br><br>500 mL | 28 days | Frontier Geoscience's SOP<br>(Cold Vapor –AFS) | Frontier Geosciences (shipped by DEQ Lab) |
| Non-Hg Metals | Dissolved Metals<br>Cr, Cu, Cd, Pb, Ni, As, Zn | DEQ | Freshwater HDPE<br><br>Brackish Water 2 HDPE | 1% $HNO_3$ to pH<2, 4°C<br><br>0.099% HNO3, 4°C | 250 mL<br><br>1000 mL + 250 mL | 180 days | Frontier Geoscience's SOPs<br>(ICP/MS) | Frontier Geosciences (shipped by DEQ Lab) |

**TABLE 1. WATER SAMPLE COLLECTIONS AT EACH SITE**

| Bottle | Parameter Category | Collected By | Container | Preservation | Minimum Sample Volume or Weight | Maximum Holding Time | Analytical Methods | Laboratory |
|---|---|---|---|---|---|---|---|---|
| C | Nutrients Hardness | DEQ | Rectangular plastic | H2SO4 to pH < 2, 4°C | 1 liter | 28 days | TKN EPA 351.2<br>T. Phos. EPA 365.4<br>NH4-N EPA 350.3<br>NO2+NO3-N EPA 353.2<br>Hardness EPA 130.2 | DEQ |
| TOC | Total Organic Carbon | DEQ | Plastic Rectangular | 4°C, HCl to pH < 2 | 8 ounces | 28 days | EPA 415.1 | DEQ |
| BOD | BOD5 | DEQ | Cubitainer | 4°C | 1 liter | 48 hours | SM 5210B | DEQ |
| COD | COD | DEQ | Rectangular bottle | H2SO4, 4°C | 8 ounces | 28 days | EPA 410.4 | DEQ |
| VOAs | Volatile Organic Compounds (VOCs) | DEQ | G, (Teflon lined septum for water; 40 ml Teflon lined) | 4°C, HCl to pH<2 (pH adjust for water only) | 3 x 40 mL vials (for water) | 14 days (7 days if unpreserved by acid) for water | EPA 8260B | DEQ |
| ABNs | Semi-Volatile Compounds (SVOCs) Acid/Base Neutrals | DEQ | G, Amber, Teflon lined cap | 4°C | 1 gallon | 7 days extract/40 days analysis (water) | EPA 8270C | DEQ and DEQ Contract Lab |
| Pest | Pesticides | DEQ | Glass, Teflon-lined cap | 4°C | 1 gallon | 7 days until extraction and 40 days after extraction (water) | EPA 507, 508, 525 | Department of Agriculture |

**TABLE 1. WATER SAMPLE COLLECTIONS AT EACH SITE**

| | Parameter Category | Collected By | Container | Preservation | Minimum Sample Volume or Weight | Maximum Holding Time | Analytical Methods | Labora |
|---|---|---|---|---|---|---|---|---|
| PCB | PCBs | DEQ | Glass, teflon-lined cap | 4°C | 1 liter | 7 days until extraction and 40 days after extraction (water) | EPA 508, 525 | Department of Agriculture |
| Cyanide | Cyanide | DEQ | Polyethylene | NaOH to pH>12; 4°C | 1 Liter | 14 days | EPA 335.2 | DEQ Contract Laboratory |
| -- | Fecal Coliform Other | USGS | Glass | 4°C | 1 liter | 6 hours | SM 9222D Enteralert Colilert | USGS Mobile Laboratory |

## QUALITY CONTROL

Field measurements and water samples will be collected in accordance with pertinent DEQ standard operating procedures (SOPs) (see reference section), including calibration and maintenance of equipment, record-keeping, and data management. Any modifications to existing methods are noted in this plan. Laboratory analyses will be performed in accordance with applicable methods and SOPs.

Laboratory quality control samples will be analyzed according to the laboratory Quality Assurance Manual and the laboratory SOPs. Field quality control samples will consist of the following:

- No field duplicates will be collected. Limitations on cooler and transportation space will not allow collection of field duplicates. Additionally, ambient waters impacted by Hurricane Katrina are not expected to be homogeneous in nature.
- All samples for each site will be transported in one cooler for chain of custody purposes, with the exception of samples collected for volatile analysis. All volatile samples will be transported in a single cooler (one volatile cooler per sampling crew). Trip blanks will be transported in each volatile cooler.
- Field blanks are scheduled for collection at a rate of once/crew/week for the following bottles:
    - Bottle A
    - Bottle B at total metals sites only
    - Clean Metals (mercury and non-mercury metals)
- Contamination is not expected for other parameters; the need to collect field blanks for other parameters will be determined on an as needed basis after review of the data.

## SAMPLING HANDLING

Dissolved Metals Samples (clean metals): The DEQ Lab will get necessary bottles and equipment from Frontier Geosciences Laboratory. Chain of custody forms will be used for these samples and DEQ lab will ship samples to Frontier Geosciences.

Pesticide/PCB Samples: DEQ Lab will order bottles and ship samples to Department of Agriculture laboratory. Chain of custody forms will be used for these samples.

Cyanide Samples: DEQ lab will order bottles and ship samples to the appropriate DEQ Contract Lab. Chain of custody forms will be used for these samples.

Semi-volatile Samples: DEQ lab will order bottles and ship samples to the appropriate DEQ Contract Lab if DEQ lab resources are not available to analyze all samples. Chain of custody forms will be used for these samples.

All other samples: The DEQ lab will provide bottles/sample containers. The water quality data network sheet will be used to log field data and record sample transfer to the DEQ lab. If any of these samples are routed to contract labs due to resource limitations, DEQ laboratory staff will prepare appropriate chain of custody documentation.

USGS will handle all aspects of fecal coliform sampling at all sites and collect their routine water quality samples at sites 0109 – Chef Menteur Pass and 0035 – Pass Rigolets only.

**DATA TRANSFER AND MANAGEMENT**

A new Louisiana Environmental Access Utility (L'EAU or "DEQ Water Quality Database") project number, ES2005006, has been assigned to track water quality data collected by the LDEQ, as part of the Department's post-hurricane water quality assessment program. Existing ambient Water Quality Network (WQN) sites to be sampled post-hurricane will be linked to the project ES2005006 for incoming data. New sites established for the effort will be assigned a L'EAU site number and linked to the same project for data management purposes. LDEQ's water quality laboratory will be informed of the project and site numbers to be used for the monitoring effort in order to facilitate LIMS management of the data at the laboratory.

Currently, all environmental data are being loaded into EPA's SCRIBE data system. DEQ is working with EPA and their contractors to download data into electronic files that can eventually be uploaded into DEQ's L'EAU database; this will allow DEQ water quality staff to continue using existing procedures for data management and water quality assessments. In the interim, a temporary Access database has been established to house the Katrina surface water monitoring data collected under this plan. The interim data transfer procedure follows:

Data collected by DEQ and analyzed by the DEQ laboratory, a DEQ contract laboratory or the Department of Agriculture laboratory will be forwarded as an Electronic Data Deliverable (EDD) from the DEQ laboratory to Gary Fulton, Dana Shepherd, Tom Harris and Barbara Romanowsky. Gary Fulton will provide EDDs to EPA's Environmental Unit; Barbara Romanowsky will forward the EDDs Al Hindrichs, Kimberly Cornelison, Mary Beth Fleming and Kris Pintado (WQAD staff). WQAD staff will separate the EDD into "ambient" data and other ("bowl") data and send the other data back to Dana Shepherd. USGS will submit data to

Emelise Cormier who will forward to Gary Fulton, Al Hindrichs, Kimberly Cornelison, Mary Beth Fleming, and Kris Pintado; Gary Fulton will forward to the EPA Environmental Unit.

Field data sheets will be provided to Mary Beth as the field sampling crews return to DEQ. Until data are retrieved from EPA's SCRIBE data system, DEQ field data will be entered into Excel spreadsheets for storage and analysis.

## DATA EVALUATION

There are several parameters that have human health criteria lower than the sensitivity levels of the proposed analytical methods. If the laboratory reports "non-detects" for these particular parameters, DEQ will investigate the possibility of using alternate analytical methods, however, technology may be the limiting factor in reporting levels for these parameters.

Validation of analytical data will be performed by the laboratory. Qualified data will be reviewed by the WQAD data evaluation personnel to determine usability. Field blank data will be evaluated for parameters with reported results (i.e. numbers and not non-detects)

## DATA ANALYSIS AND WATER QUALITY ASSESSMENT

Data for existing WQN sites in the hurricane impacted area has been retrieved from L'EAU and summary statistics developed. Summary statistics are for a 5-year period for all months; additional summary statistics were calculated for August and September only in order to compare data being collected currently for the post-hurricane impact assessment. Two-month rolling averages will be calculated as needed.

Data summaries for existing sites monitored in Phase 1 (Appendix A – site number less than 3115) will be used for comparison to newly collected post-hurricane samples. For new data collection sites (Appendix A – site numbers $\geq$ 3115), data from nearby established WQN sites will be reviewed for comparison to new sites. Due to the initially small sample sizes, the results of this comparison will consist of simple statements such as, "Results of post-hurricane sampling indicated that parameter X is greater (or less) than the mean of pre-hurricane ambient sampling conducted by DEQ." If pre-hurricane data is adequate to derive summary statistics, standard deviations and variances will also be calculated in order to determine if post-hurricane samples fall within ambient sampling ranges. Comparisons will also be made to existing water quality standards.

## AMENDMENTS TO THE PLAN

Any amendments to the Phase 1 sampling plan will be documented as separate "attachments" to this plan rather than incorporating changes into the document. Document control headers will be located in the upper right corner of the document and will contain the following information:

Hurricane Katrina Surface Water Monitoring Plan
PHASE1 – AMENDMENT #
mm/dd/yy
Page #

Page numbers should be unique for each amendment and not be continued from the original plan or any previous amendments. In order to track amendments, the title page will be updated each time an amendment is made. The list of amendments on the title page will be cumulative.

## REFERENCES

| Standard Operating Procedures | Rev. Date |
|---|---|
| 1. Calibration, Maintenance and Operation of Hydrolab Reporter/H2O | 2/14/2005 |
| 2. Calibration, Maintenance and Operation of YSI 63 | 12/15/2003 |
| 3. Calibration, Maintenance, and Operation of Hydrolab MiniSonde 4A | 7/18/2005 |
| 4. Collection of Geographical Location Data using the Trimble Pro-XR GPS Receiver | 8/1/2005 |
| 5. Sampling for Mercury in Louisiana Biota, Sediments, and Surface Waters | 1/30/2002 |
| 6. SOP for Calibration, Maintenance, and Operation of Hydrolab Quanta | 2/14/2005 |
| 7. Water Sample Collection, Preservation, Documentation and Shipping | 3/23/2004 |
| 8. in situ Water Monitoring using Electronic Instruments | 12/06/2004 |
| 9. Procedures For Data Entry -- Surface Water Quality Data | 1/18/2002 |
| 10. Production Of Clean Water Act 303(d) Report | 1/18/2002 |
| 11. Production Of Mercury Report And Other Special Reports | 1/18/2002 |
| 12. Production Of Water Quality Inventory (Clean Water Act 305(b) Report) | 1/18/2002 |

APPENDIX A – PHASE 1 – LAKE PONTCHARTRAIN AND SURROUNDING AREAS SAMPLING SITES

| SITE NO | SITE NAME | SITE LOCATION | SUB SEGMENT | HUC | UTM_E | UTM_N | LATITUDE | LONG | LAT_DD | LON_DD | POINT_X | POINT_Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0033 | Tangipahoa River west of Robert, Louisiana | at bridge on US Hwy 190, 1.2 miles west of Robert, 6.0 miles east of Hammond | 040701 | 08070205 | 753208 | 3377678 | 303023 | 902142 | 30.50639 | 90.36167 | 753194.08363699900 | 3377881.01025999000 |
| 0035 | Pass Rigolets (The Rigolets) southeast of Slidell, Louisiana | at bridge on US Hwy 90, 6.4 miles southeast of Slidell | 041704 | 08090203 | 814276 | 3341634 | 301002 | 894413 | 30.16722 | 89.73694 | 814263.18372600000 | 3341836.22660999000 |
| 0036 | Pass Manchac at Manchac, Louisiana | East side of bridge on I-55 (US Hwy 51). | 040601 | 08070204 | 750074 | 3352647 | 301653 | 902401 | 30.28139 | 90.40028 | 750060.25246700000 | 3352849.67737000000 |
| 0105 | Pearl River (West) southeast of Slidell, Louisiana | at bridge on US 90, 0.5 mile east of junction of US 90 and US 190 7.7 miles southeast of Slidell | 090202 | 03180004 | 820628 | 3348879 | 301351 | 894008 | 30.23083 | 89.66889 | 820615.23288400000 | 3349081.35839000000 |
| 0106 | Tchefuncte River at Madisonville, Louisiana | at bridge on State Hwy 22 in Madisonville | 040802 | 08090201 | 773388 | 3366858 | 302416 | 900916 | 30.40444 | 90.15444 | 773374.31072800000 | 3367060.87533999000 |
| 0109 | Chef Menteur Pass at Chef Menteur, Louisiana | at bridge on US Hwy 90 in Chef Menteur | 041702 | 08090203 | 807839 | 3330415 | 300404 | 894825 | 30.06778 | 89.80694 | 807826.13847200000 | 3330617.13513999000 |
| 0137 | Lake Pontchartrain (Causeway Crossover #7) near Metairie, Louisiana | At Crossover Number 7 on causeway bridge, 3.9 miles north of toll gate on south shore of Lake Pontchartrain. | 041001 | 08090202 | 775421 | 3330605 | 300438 | 900834 | 30.07722 | 90.14278 | 775407.65217000000 | 3330807.38819999000 |
| 0138 | Lake Pontchartrain (Causeway Crossover #4) near Metairie, Louisiana | At Crossover Number 4 on causeway bridge, near mid-lake, 12 miles north of toll gate on south shore of Lake Pontchartrain. | 041001 | 08090202 | 777642 | 3342433 | 301100 | 900700 | 30.18333 | 90.11667 | 777628.54023599900 | 3342635.54770000000 |
| 0139 | Lake Pontchartrain (Causeway Crossover #1) near Covington, Louisiana | At Crossover Number 1 on causeway bridge, 3.9 miles south of toll gate on north shore of Lake Pontchartrain. | 041001 | 08090202 | 778548 | 3356264 | 301828 | 900613 | 30.30778 | 90.10361 | 778534.42695700000 | 3356466.73722000000 |

APPENDIX A – PHASE 1 – LAKE PONTCHARTRAIN AND SURROUNDING AREAS SAMPLING SITES

| SITE NO | SITE NAME | SITE LOCATION | SUB SEGMENT | HUC | UTM_E | UTM_N | LATITUDE | LONG | LAT_DD | LON_DD | POINT_X | POINT_Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0216 | Lake Pontchartrain-18 north of Metairie, Louisiana | On Lake Pontchartrain Causeway at crossover number 6, 8.0 miles from south shore. | 041001 | 08090202 | 775974 | 3336142 | 300737 | 900808 | 30.12694 | 90.13556 | 775960.59578700000 | 3336344.46340999000 |
| 0217 | Lake Pontchartrain-20 south of Mandeville, Louisiana | On Lake Pontchartrain Causeway at crossover number 2, 8.0 miles from the north shore toll gate. | 041001 | 08090202 | 777842 | 3350710 | 301528 | 900645 | 30.25778 | 90.11250 | 777828.45678000000 | 3350912.66565999000 |
| 0300 | Bayou Lacombe west of Slidell, Louisiana | At U.S. 190 bridge in Lacombe, Louisiana. | 040901 | 08090201 | 794726 | 3357336 | 301849 | 895607 | 30.31361 | 89.93528 | 794712.62959599900 | 3357538.67474999000 |
| 0301 | Bayou Bonfouca at Slidell, Louisiana | At La. 433 bridge in Slidell, Louisiana. | 040907 | 08090201 | 808490 | 3353000 | 301616 | 894737 | 30.27111 | 89.79361 | 808476.96317700000 | 3353202.43206000000 |
| 0302 | Cane Bayou east of Mandeville, Louisiana | At U.S. 190 bridge, 3.0 miles east of Mandeville, Louisiana. | 040903 | 08090201 | 788180 | 3359800 | 302014 | 900009 | 30.33722 | 90.00250 | 788166.49352599900 | 3360002.77510999000 |
| 0304 | Bayou La Branche north of Norco, Louisiana | At I-10 bridge 6.7 miles west of Kenner, Louisiana. | 041201 | 08090203 | 753890 | 3327330 | 300308 | 902200 | 30.05222 | 90.36667 | 753876.51615000000 | 3327532.40785000000 |
| 0306 | Inner Harbor Navigation Canal at New Orleans, Louisiana | at bridge on State Hwy 47 at Hayne Blvd. in New Orleans | | 08090203 | 786000 | 3325750 | 300151 | 900204 | 30.03083 | 90.03444 | 785986.78561999900 | 3325952.26012999000 |
| 1049 | Duncan Canal at I-10 mile marker 221, Kenner, Louisiana | 1.0 mile North of Moisant Airport, 2.7 miles Northeast of Almedia | 041203 | 08090203 | 762401 | 3322460 | 300024 | 901647 | 30.00667 | 90.27972 | 762387.64166199900 | 3322662.34167000000 |
| 1050 | Suburban Canal near pumping station #2, Avron Drive, Metairie, Louisiana | 4.0 miles East of Kenner, 6.0 miles West of New Orleans | 041302 | 08090203 | 771950 | 3324131 | 300111 | 901049 | 30.01972 | 90.18028 | 771936.69767100000 | 3324333.31715000000 |
| 1077 | Bayou Liberty at Hwy. 433 Bridge | 0.1 mile Southwest of Bonfouca, 5.2 miles Southwest of Slidell | 040906 | 08090201 | 803605 | 3352509 | 301604 | 895040 | 30.26778 | 89.84444 | 803591.86365199900 | 3352711.48550000000 |

APPENDIX A – PHASE 1 – LAKE PONTCHARTRAIN AND SURROUNDING AREAS SAMPLING SITES

| SITE NO | SITE NAME | SITE LOCATION | SUB SEGMENT | HUC | UTM_E | UTM_N | LATITUDE | LONG | LAT_DD | LON_DD | POINT_X | POINT_Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3115 | Lake Pontchartrain near Duncan Canal | 0.5 mile from shore off Duncan Canal | 041001 | 8090202 | 762325 | 3328880 | 300347 | 901644 | 30.06293 | 90.00000 | 762325.47573499900 | 3328880.26151000000 |
| 3116 | Lake Pontchartrain near Suburban Canal | 0.5 mile from shore off Suburban Canal | 041001 | 8090202 | 771847 | 3326270 | 300214 | 901051 | 30.03732 | 90.00000 | 771846.67720200000 | 3326270.31502000000 |
| 3117 | Lake Pontchartrain near 17th Street Canal | 0.5 mile from shore near 17th Street Canal | 041001 | 8090202 | 777737 | 3327247 | 300241 | 900711 | 30.04480 | 90.00000 | 777737.28270400000 | 3327247.22237000000 |
| 3118 | Lake Pontchartrain near Inner Harbor Navigation Canal | 0.5 mile from shore off Inner Harbor Navigation Canal | 041001 | 8090202 | 785305 | 3327422 | 300241 | 900228 | 30.04464 | 90.04120 | 785304.66947399800 | 3327422.19084999000 |
| 3119 | Lake Pontchartrain near Little Woods | 0.5 mile from shore off Little Woods | 041001 | 8090202 | 793397 | 3332219 | 300517 | 895722 | 30.08796 | 90.00000 | 793396.96168600000 | 3332219.24335000000 |